

REMARKS

Applicants respectfully request reconsideration of the present application in view of the foregoing amendments and in view of the reasons which follow.

Claims 2-5, and 10-11 are currently being amended.

Claim 16 is being added.

After amending the claims as set forth above, claims 2-8 and 10-16 are now pending in this application.

Rejection under 35 USC § 101

The examiner contends that claims 2-4 are directed to non-statutory subject matter. Applicants have amended these claims to recite an *isolated* endo- β -N-acetylglucosaminidase gene, as suggested by the examiner on page 2 of the office action.

Rejection under 35 USC § 112, second paragraph

Claims 3-6, and 10-15 are rejected for alleged indefiniteness. Again, applicants have followed the examiner's suggestion by amending the claims to specify "stringent" sodium concentration and temperature conditions. Support for these changes are found in the specification, for example, on page 11 at lines 10-12.

Further, applicants have replaced the phrase "derived from" in claims 5, 10, and 11 with "isolated from," in keeping with the examiner's comments. Applicants believe that these amendments overcome the subject rejection.

Rejection under 35 USC § 112, first paragraph

The stated grounds for this rejection are inapposite to amended claims 3-4 and 10-13, which recite a gene comprised of a DNA that hybridizes to a nucleotide sequence represented by SEQ ID NO: 2 under a specified sodium concentration and temperature range. No undue experimentation would be required for one skilled in the art to practice the invention thus described. This is so because one could clearly determine which gene consists of DNA able to hybridize to the prescribed nucleotide sequence under the recited conditions.

Further, applicants have amended claim 2 to specify that 1-10 amino acids may be deleted, added, inserted, or substituted, as taught in the specification for example, at page 12, lines 12-16. Accordingly, the present claims encompass an endo- β -N-acetylglucosaminidase gene encoding a protein having SEQ ID NO: 3, optionally with 1-10 amino acid modifications, which is commensurate with the enabling disclosure of the original specification.

Rejection under 35 USC § 102

Claims 2, 7, and 8 are rejected for alleged anticipation by Takegawa et al. By amending claim 2, applicants believe that this rejection is overcome because as stated above, the claims encompass either SEQ ID NO:3 or SEQ ID NO:3 with modifications of 1-10 amino acids. The amino acid sequence for SEQ ID NO:3 does not cover EndoA as taught by Takegawa. Further, modifying 1-10 of the 744 amino acids in SEQ ID NO:3 would not result in Takegawa's EndoA since the recorded homology between amino acids of the two proteins is about 26% and this modification would result in a much higher homology. Accordingly, Takegawa cannot anticipate the present invention because it does not cover an endo- β -N-acetylglucosaminidase gene encoding a protein having SEQ ID NO: 3 with or without 1-10 amino acid modifications.

Additionally, applicants note that the homology of the two amino acid sequences, EndoA of Takegawa and the protein of the present invention, herein after referred to as Endo-M, is insufficient for the skilled person to consider the two proteins to be of the same type. In particular, only about 26% homology exists between Endo A and Endo M. Accordingly, the Takegawa reference does not anticipate the presently claimed invention because it does not teach the protein encoded by applicants' claimed gene.

Applicants also would emphasize Takegawa's explicit teaching that EndoA does not act on complex sugar chains as stated in EP0769550 on page 3, lines 43-44. In contrast, the present specification states that a protein within the present invention is "capable of cleaving triantennary complex sugar chains of not only high mannose type ... and hybrid type, but also complex type chains." See specification page 2, lines 8-10. It necessarily follows that a gene encoding the protein of the present invention is not anticipated by Takegawa.

Applicants believe that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

If any fees are due in connection with the filing of this Amendment, please charge the fees to our Deposit account No 19-0741. If a fee is required for an extension of time under CFR § 1.136 that is not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

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